

LITERATURE CITED

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SMALL'S MANUAL OF THE SOUTHEASTERN FLORA.¹—To botanists of eastern North America, Dr. Small's work needs no introduction. They have long respected it and found it indispensable; they will have a cordial welcome for this latest addition to it. A reviewer's function is sufficiently performed if he make some comparison of this Manual with the Flora which preceded it.

Certain changes are at once obvious. Although the number of pages is actually larger, thin paper has reduced the thickness of the volume by nearly one-third. The geographic area covered has been made smaller and more homogeneous by leaving out the states west of the Mississippi River. Each genus and in the case of *Carex* each section now has one clear and useful little illustration of floral parts and fruit. The longer keys have been recast into the two-story form generally used in the North American Flora—a primary key to groups of species, which are given series-names, and secondary keys to the individual species of each group. This arrangement has the advantage of bringing the main key-headings close together and, while retaining the visual clarity of the indented key, avoiding the successive steppings-back which sometimes reduce the letter-press to a narrow band at the right of the page. Many descriptions have also been skilfully and profitably rewritten,² and, of course, much new matter has been added from the accumulations of twenty years.

On the other hand, users of the Flora will find the general method and taxonomic point of view of the Manual wholly familiar. It affords added evidence of Dr. Small's ready hospitality to the work of others. Beside many revisions incorporated into his text, acknowledgment is made of direct aid from eighteen colleagues. Mr. Mackenzie's excellent and finely illustrated revision of *Carex* deserves especial mention here.

Familiar, too, will be the continued use of the American Code. That certain practices not now sanctioned should be kept up after the accord happily reached at the Cambridge Congress is regrettable. Apology is made for some coadjutors who are now following the International Rules

¹ Small, John Kunkel. Manual of the Southeastern Flora, being Descriptions of the Seed Plants growing naturally in Florida, Alabama, Mississippi, eastern Louisiana, Tennessee, North Carolina, South Carolina and Georgia. New York. Published by the Author. 1933. pp. xxii, 1554. Ill.

² In preparing our notes on the spring flora of eastern South Carolina, Mr. Griscom and I, then using the 1913 edition of the Flora, had occasion to point out some deficiencies in its statements. These passages had to be deleted when the Manual appeared; it had anticipated and adequately met our criticisms.

on the ground that their contributions were already in type in 1930. The same might be said for Dr. Small's own work; the difficulties of changing nomenclatural habits in a work well under way are considerable. And in his case it could be added that this is his personal publication in which individual views can more fittingly be maintained than under the imprint of an institution. Nevertheless, it is a pity. Nomenclature is, after all, only a convention; convictions are out of place in it. The one thing worth striving for is unanimity—with common sense if possible, but, anyway, unanimity.

There is little occasion for a die-hard attitude among former partisans of the American Code. They need labor under no deep sense of defeat. If they have failed to persuade the botanical world to abandon custom altogether for a rigid priority, they have yet written into the now accepted rules much of that for which they have contended. The rules of 1930 are more like the American Code than like those under which the sixth edition of Gray's Manual and the earlier of the great floras emanating from Kew were prepared. The step to them ought not to be difficult.

The nomenclatural feature of the book hardest to regard with complacency is the unquestioning acceptance of changes in typification made under the American Code purely to satisfy its academic theory of selection of types and resulting in confusing shifts in the application of familiar names. An extreme example is *Solidago rigida*. This has been abundantly discussed by Mr. Mackenzie and me;¹ it is enough to recall that this name has been applied, ever since 1753 and with practical, if not complete, unanimity, to a certain well-marked species, represented by specimens in the herbaria of Linnaeus and of Clifford. It is now moved and made to displace another well-known and well-fixed name, simply because an individual interpretation of a dubious plate cited (unluckily) by Linnaeus is preferred to the specimens mentioned as a basis for typification. To one who holds the view of nomenclature outlined above, such abandonment of achieved definiteness for incurable indefiniteness is the *reductio ad absurdum* of the type method.

The choice of one name appears to follow no rule. *Lyonia* Ell. (1818), taken up for the more familiar *Seutera* of the *Asclepiadaceae*, is antedated by *Lyonia* Raf. Med. Repos., Hex. 2, v. 352 (1808). The latter is wholly illegitimate, being a direct substitute for *Polygonella* Michx., but it is correctly published and would seem to prevent any later use of the name, except by conservation.

The dividing up of genera proceeds, logically, a few steps farther than before. *Clintonia* and *Streptopus*, for instance, at first sight not particularly promising subjects for segregation, become two genera each; *Polygala* appears as five; *Gaylussacia* is dissolved into three; and the disintegration of *Vaccinium* is completed by the setting up of *Herpothamnus* for *V. crassifolium*. In his preface, Dr. Small disclaims any title to the appellation of "splitter"; he has, he says, endeavored "to make the genera, as far as possible, correspond in rank to the great majority of groups of species now recognized as genera by most present-day botanists." Granting that there is a tendency toward microgenera, it is still possible to doubt if a general poll of present-day botanists would really show a majority in favor of quite such finely-drawn divisions as many of Dr. Small's.

¹ RHODORA xxviii. 29-31; 138-145; xxix. 26-32.

Some newly-launched genera run at once on nomenclatural rocks. *Buxella* and *Lasiococcus* Small, of the *Vacciniaceae* are antedated respectively by *Buxella* van Tieghem (*Buxaceae*), Ann. Sci. Nat. ser. 8, v. 326 (1897) and *Lasiococca* Hook. f. (*Euphorbiaceae*) Icon. Pl. t. 1587 (1887); and *Rotantha* of the *Campanulaceae* is a later homonym of *Rotantha* Baker (*Lythraceae*), Journ. Linn. Soc. xxv. 317 (1890).

If one dislikes subgenera, he will naturally have an equal dislike for varieties; only occasionally, as in the case of the purple-flowered var. *Elliottii* of *Cirsium horridulum*, does Dr. Small give one incidental mention. As before, he gives full specific rank to any form which he finds deserving of recognition at all. One result is that, with additional material, even Prof. Burgess's far from conservative 95¹ asters are increased to 106; and *Iris*, with *I. verna* and *I. cristata* removed to another genus, is expanded from 8 to 96 species. It should be said at once, however, that this latter is no haphazard description of slightly different herbarium specimens. The remarkable iris-beds of Louisiana, from which most of the novelties came, have had prolonged study, plants have been grown at New York and seedlings watched to maturity. The interpretation, as Dr. Small rather attractively calls it, rests, then, on well-fortified conviction and treats of an unusual natural phenomenon. Even so, as one contemplates Bicknell's 36¹ *Sisyrinchia* of 1913 reduced to 12 by Mr. Alexander and Beadle's 180¹ *Crataegi* shrunk to 33 under Mr. Tidestrom's hand, one is perhaps to be pardoned for wondering what the genus *Iris* will be like in the edition of 1953.

The taxonomic outline, then, of the Manual shows, in general, close resemblance to that of the Flora, but it is to a much greater extent and to the notable and praiseworthy broadening and improvement of the work, filled in with correlative information. Much more attention is paid to phytogeography. Like other eastern botanists, Dr. Small has found that Merriam's life zones do not work well here as units of plant distribution. He takes instead Fenneman's physiographic divisions and obtains thereby clear and reasonable geographic provinces. With Dr. Wherry's aid, the divisions in which each species is found are given, so far as present information permits.² There are especially detailed and careful statements of habitat; soil-preference is indicated when possible. And the interest of the work is not a little enhanced by the further addition of miscellaneous notes on local uses of plants, vernacular names and the like and of critical observations drawn from Dr. Small's long and mature experience.

There may well be differences of opinion as to the limits of genera and the worth of species. No doubt there should be until our knowledge is perfect. There can be none as to the value of a work like this, the fruit of many years' labor in a field which the author has made peculiarly his own. The Manual will be for long a standard; it will always remain one of the notable American floras.—C. A. WEATHERBY.

¹ These figures are arrived at by deducting from the total in the Flora of 1913 those species which occur only west of the Mississippi.

² In a few cases, a still more detailed statement of range would have been desirable. *Leptochloa filiformis* and *Aristida oligantha* are credited to Massachusetts and *Hordeum pusillum* to Maine, as if they were native there. They are actually known in these states only as waifs in mill-waste at one or two stations separated by considerable distances from the really natural range of the species.